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AMSAT NEWS SERVICE
ANS-124

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SAT @ AMSAT $ANS-124.01
ANS-124 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 124.01
>From AMSAT HQ SILVER SPRING, MD.
DATE MMMM DDDD, YYYY
To All RADIO AMATEURS
BID: $ANS-124.01

LituanicaSAT-1 FM Transponder Operation Feedback

With the LituanicaSAT-1 FM transponder being operative on May 1 many members of the AMSAT-BB shared their experiences.

Thursday Morning May 1 Pete W2JV reported
"The downlink was strong at 16 degrees at 13:39 U, I heard CO6CBF, well done to the team."

Hector CO8CBF/KF5YXV posted "LituanicaSat-1 was sounding very good over the Caribbean (Cienfuegos EL92sd, Cuba). Nice signal for just 150mw! I heard Pete, W2JV and worked Frank, K4FEG. I was running just 5W into an ARROW antenna.
Congratulations to the LituanicaSAT-1 team!"

Thursday evening May 1 Paul N8HM reported

"The transponder was indeed on for the 2140Z pass over North America. I heard a station in DN45 (I guess it was WC7V) right as the satellite came up above about 10 degrees (lots of buildings and trees in the way), worked AC0RA, but there was some difficulty getting into the satellite with just 5 watts and an Elk antenna, and then I heard and half-worked WB3CSY (probably not a valid QSO) before I lost the bird at about 12 degrees. I also heard the ID and greeting about halfway through the pass.

"The signal is a few dB down from SO-50 and the uplink receiver is definitely less tolerant of being off frequency. My best signal into the bird was in narrow FM while tuning for Doppler on the uplink. At TCA, an elevation of about 55 degrees, the downlink signal was S9 on my FT-817s meter. SO-50 is usually S+ above 35 degrees here.

"My station here is two FT-817s, an Elk Antenna, and a High Sierra Microwave LNAA432 preamp. I was having some desense issues and further inspection revealed a nick in my feedline as the probable cause."

Roland PY4ZBZ posted the posted this report as the satellite passed over Brazil.
FM repeater on at 23:15 UTC ! orbit #976
http://www.qsl.net/py4zbz/lituanicasat1a.wav

The LituanicaSAT-1 team announced early in the week that the saltellite scheduled would be operative again on May 1, from 9:30 UT to 14:00 UT, and Satellite's ground control station in Vilnius would be standing by monitoring the transponder's frequency and attempt to call CQ with the amateur call sign LY5N (LituanicaSAT-1 callsign) when the satellite will be in sight of the ground station. The expected time windows were:

* 2014/05/01 10:46:22 UT - 2014/05/01 10:56:24 UT
* 2014/05/01 12:21:48 UT - 2014/05/01 12:31:47 UT

All QSO's with the call LY5N will be granted special QSL cards, signed by the LituanicaSAT-1 core team members and sent out via bureau (no directs).

Every amateur working the FM repeater is encouraged (but not obligated) to RX and answer only the LY5N CQ call during the above time windows.

Frequency are approximately 435.1755 MHz for the downlink and 145.950 MHz for the uplink (+/- Doppler Shift).

FM transponder operating techniques
http://www.dk3wn.info/p/?p=44412

Lithuanian CubeSat LituanicaSAT-1
http://amsat-uk.org/2014/02/27/lituanicasat-1-cubesat/

[ANS thanks LituanicaSAT-1 team and AMSAT-BB for the above information]

BOOK NOW FOR THE SA AMSAT SPACE SYMPOSIUM ON 24 MAY

Discounted rates are available to SARL and SA AMSAT members who book

for the SA AMSAT Space Symposium before 5 May. SARL members pay 50% less than non-members. The early bird rate is R150 which includes a copy of the papers on DVD. The symposium will be held at the Innovation Hub in Pretoria which is situated opposite the CSIR with a quick access via the Lynwood off ramp on the N1.

The date is 24 May. Some of the highlights include a demonstration of the KLETSkous hardware, presentations on FunCube, DynaCube and an innovative propulsion system that can be used to alter the obit of a CubeSat once launched in Space. For smartphone users apps to predict satellites passes and telemetry downloads will be demonstrated. The full programme is available on www.amsatsa.org. Get with it now.

[ANS thanks SARL News 4/26/14 for the above information]

Eighth Annual AMSAT/TAPR Banquet Reservations Close May 13th

The eighth annual AMSAT/TAPR Banquet will be held on Friday night, May 16. This dinner is always a highlight of the AMSAT (Radio Amateur Satellite Corp.) and TAPR (Tucson Amateur Packet Radio) activities during the Dayton Hamvention.

This year's speaker will be Dr. Tom Clark, K3IO, speaking on his "Sixty Years a Slave (to Amateur Radio)." Tom has been a lifetime contributor to both AMSAT and TAPR, and has a fascinating professional career.

Tickets ($30 each) must be purchased online by May 13th on the AMSAT website at www.amsat.org through the AMSAT Store tab.
Tickets will not be sold at the Hamvention or at the door.
Tickets purchased online may be collected at the AMSAT booth (433-435, 444-446).
The Banquet will take place at the Kohler Presidential Banquet Center, 4572 Presidential Way, Kettering, OH 45429 (just south of Dayton). The cash bar will openat 1830 EDT, with the dinner commencing around 1900 EDT.

[ANS thanks AMSAT for the above information]

UK CubeSat Workshop: Student Research Pitches

AMSAT-UK have donated a FUNcube Dongle SDR to be awarded to the best student research pitch at the UK CubeSat workshop to be held in Harwell on May 13.

Please send your 5 minute research pitches along with the following details to send to Chris Bridges M0GKK email: c.p.bridges(a)surrey.ac.uk There will be a prize for best presentations on the day! The prize includes a UK Space Agency goody-bag including a mug, t-shirt, badges, and more. Plus a FUNcube Dongle, kindly donated from AMSAT-UK.

Please include the following to your submission:

* Presentation Title
* Author/ Supervisor

* Affiliation
* 5 Bullet Points on the Presentation Content (what, why, who cares?).

Presenters will be notified on 10th May 2014.

Source: http://tinyurl.com/ANS124-ResearchPitches

2014 UK CubeSat Workshop - Free Registration
http://www.cubesatforum.org.uk/wordpress/2014-uk-cubesat-workshop/

FUNcube Yahoo Group http://amsat-uk.org/funcube/yahoo-group/

FUNcube Dongle Pro+ SDR Yahoo Group
http://amsat-uk.org/funcube/funcube-dongle-sdr/

[ANS thanks AMSAT-UK for the above information]

Ham Radio Earth-Moon-Earth Art Event on Google+ Hangout

OPTICKS is a live radio transmission performance between the Earth and the Moon during which images are sent to the Moon and back as radio signals using the MMSSTV Slow San TV software developed by Makoto Mori JE3HHT

A live Google+ hangout is taking place on May 1 at 2000 UT. A Reddit AMA will precede the Hangout at 1500 UT.

The project has been realized by visual artist Daniela de Paulis (IT/NL) in collaboration with Jan van Muijlwijk PA3FXB and the CAMRAS radio amateurs association based at Dwingeloo radio telescope (NL). Each live performance is made possible thanks to the collaboration of radio amateurs Howard Ling G4CCH (UK), Bruce Halász PY2BS (Brazil) and Daniel Gautschi HB9CRQ (CH).

The live hangout will feature a "touch" and bounce of Humans in Space Youth Art Competition artwork off the Moon using OPTICKS radio wave technology. Guests and remote participants will discuss the significance of the artwork and the performance and explore the impact of past, present, and future human presence on the Moon.

Guests
- Andrew Chaikin is the author of Man on the Moon and From Earth to the Moon.
- Wendell Mendell is a retired NASA lunar and planetary exploration scientist.
- Sarah Nobel is a current NASA lunar scientist and artist.
- Frank Shiner is a winner of both the 2010 and 2012 Humans in Space Youth Art Competitions.
- Jan van Muijlwijk PA3FXB, OPTICKS collaborator, radio operator, CAMRAS/Dwingeloo radio telescope.
- Daniela De Paulis is the visual artist and researcher who developed the OPTICKS live performance technology in collaboration with the Dwingeloo radio telescope.
- Jancy McPhee is the director of the Humans in Space Art Program, which includes the Youth Art Competition Project in its portfolio.

Learn more at http://www.Opticks.info/ and
http://www.HumansInSpaceArt.org/

OPTICKS employes a technology used by radio amateurs called Earth-

Moon-Earth or Moonbounce in which the Moon is used as a natural reflector for radio signals.

In October 2009 Daniela de Paulis and Jan van Muijlwijk PA3FXB started pioneering a new application of Moonbounce technology, called Visual Moonbounce, which allows sending images to the Moon and back, combining Radio Astronomy with amateur radio technologies.

The title OPTICKS is inspired by Newton's discoveries of the light spectrum, reflection and refraction. Similarly, the colours composing an image - converted into radio signals - are bounced off the Moon (reflected and refracted) by its surface during each live performance.

The performance is introduced by live sounds of amateurs radio signals captured by the Dwingeloo antenna tracking the moon.

Watch a recording of the performance for the radio programme RaiTunes
You can support the project by purchasing a limited edition t-shirt from this link
https://fabrily.com/EarthAndMoon2

Google+ Hangout GAM AstroArt: Touching the Moon with Art & Footsteps
https://plus.google.com/events/ckm4364t5f7fcg0m42rgb7br2lc

Daniela de Paulis http://www.danieladepaulis.com/

Story source http://www.opticks.info/

[ANS thanks Southgate ARN for the above information]

HAMSAT - VO-52 Completes 9 Years in Space

It gives us great pleasure to inform that 'HAMSAT - VO-52' is successfully completing 9 years of fruitful services on 4th May 2014 and entering into her 10th year of services on 5th May. HAMSAT was launched as a piggy back aboard PSLV-C6 on 5th May 2005 (5-5-5). We do hope that the contribution of 'HAMSAT' by India/ISRO to the 'Global Amateur Radio Fraternity' has served its purpose. It gives us great pleasure and satisfaction to note that 'HAMSAT VO-52' has remained as one of the most sought after and favorite 'Linear Birds' among the radio amateurs for her sensitivity, strong down link signals, stability and the ease to work.

Though expected to work for two years (mainly, considering the battery), HAMSAT VO-52 has really out lived and still doing strong. Latest telemetry indicates all the parameters and systems to be normal and satisfactory. We do hope that 'HAMSAT' would continue to provide her good services to 'Amateur Radio fraternity' for many more years.

On this happy occasion, we place on records our sincere thanks and appreciations to, Chairman ISRO, Scientific Secretary ISRO, Director ISRO Satellite, Mission Director, Operations Director, 'HAMSAT' project team at various ISRO centres, AMSAT-India and Williams Leijenaar PE1RAH for their contribution in achieving this this milestone.

[ANS thanks Mani VU2WMY/KJ6LRS for the above information

Commercial HDTV Streaming Live from ISS

Now, live from space, it's Earth all the time! A new experiment called the High Definition Earth Viewing (HDEV) was launched on April 18, 2014 in the "trunk" on the SpaceX Dragon spacecraft and has been set up outside the International Space Station.

The set of four commercial HD video cameras and is now operational, after being installed on the External Payload Facility of the ESA Columbus module this week. The cameras and electronics are enclosed in a pressurized box to provide protection to the equipment from the harsh environment of space.

Watch the view from the ISS live on-line at:
http://www.ustream.tv/channel/iss-hdev-payload

Please note that the screen will appear black when the ISS is in orbital night. There also has been some downtime off and on that I've noted while watching this morning. This may be due to some initial setup/operation issues, or some occurrences of loss of signal.

(Editor Note: This is not the HAMTV experiment.)

[ANS thanks UniverseToday.com for the above information]

AMSAT Office Relocated; Reopens

Following 33 years of having an office in the same building in Silver Spring. MD the AMSAT office reopened on Friday, 2 MAY at a new address in Kensington, MD. With a new address there are also new numbers:

Radio Amateur Satellite Corp. (AMSAT)
10605 Concord Ave. Suite 304
Kensington MD 20895-2526
Tel. (301) 822-4376
Fax. (301) 822-4371
WATS: (888) 322-6728

Individuals who call the old Silver Spring phone number will hear a message notifying them of the new number.

The WATS number remains unchanged, but will not be redirected to the new location until Monday, 5 MAY.

Martha's e-mail address remains unchanged.

The AMSAT office was closed 25 APR - 1 MAY in order to provide focused attention on the relocation, packing and final preparations. The actual move took place on Tuesday afternoon, 29 APR and timed so that movers could unload at the new location after 1700 EDT so as to not interfere with normal business activity at the new location.

Wednesday, 30 APR and Thursday, 1 MAY were spent finalizing the furniture arrangement, unpacking, and setting up the office electronics (phones/ computers/ fax machine).

Many thanks to Perry Klein, W3PK; Bob Carpenter, W3OTC; Barbara Saragovitz (Martha's sister), and Barry Baines, WD4ASW for their "sweat equity" this week in helping Martha with the logistics of preparation and unpacking/setup as part of the actual execution of the relocation. Expect an article on the story behind the AMSAT office relocation to be published in the May/June 2014 issue of AMSAT JOURNAL.

[ANS thanks AMSAT for the above information]

AMSAT at the Dayton Hamvention -- Last call for volunteers

The Dayton Hamvention is less than two weeks away! The 2014 Hamvention is May 16-18.

We're excited about the plans for the AMSAT booth, with five areas covering multiple topics: (1) Beginner's Corner staffed by veteran operators; (2) Engineering & Education with a working prototype of Fox-1; (3) Satellite tracking software demos with SatPC32 and MacDoppler, and Yaesu, Alpha-Spid, and WRAPS rotors; (4) Live satellite QSO demonstrations; and (5) New and renewing membership specials, updated publications, and new shirts and hats.

The annual AMSAT/TAPR dinner is Friday night with speaker Tom Clark, W3IO. On Saturday, there is a great line-up of speakers and topics at the AMSAT Forum. See the "Events" tab on www.amsat.org for the details.

We've had a good response from our call for volunteers, but we could really use another 5-6 people.

The interaction with AMSAT members, satellite operators, designers, and builders makes the whole experience a lot of fun. Meet or renew acquaintances, exchange operating tips, and find out what antennas, software and equipment other AMSAT members use. We currently expect all of the AMSAT senior officers and 6 of the 7 board members to be there too.

Whether you're available for only a couple of hours or if you can spend the entire weekend with us, your help would be greatly appreciated.

Please send an e-mail to Steve, n9ip(a)amsat.org if you can help. If you sent an e-mail, but didn't get a response, please try again.

[ANS thanks Steve N9IP for the above information]

ARISS News

+ A Successful contact was made between Dixon Elementary School Holly Ridge, Norh Carolina USA and Astronaut Koichi Wakata KC5ZTA using callsign NA1SS. The contact began 2014-04-21 18:05 UTC and lasted about nine and a half minutes. Contact was direct via NC4OC. ARISS Mentor was K4SQC.

+ A Successful contact was made between Aboshinishi Elementary

School Himeji-City Japan and Astronaut Koichi Wakata KC5ZTA using
callsign NA1SS. The contact began 2014-04-29 09:05 UTC and lasted
about nine and a half minutes. Contact was direct via 8N3AB.
ARISS Mentor was 7M3TJZ.

+ A Successful contact was made between Hidden Oaks Middle School
Prior Lake, Minnesota USA and Astronaut Koichi Wakata KC5ZTA using
callsign NA1SS. The contact began 2014-05-01 16:28 UTC and lasted
about nine and a half minutes. Contact was direct via NR0T.
ARISS Mentor was AG9D.

Upcoming ARISS Contact Schedule

>From 2014-05-12 to 2014-06-15, ARISS will be going into a period of
no contacts as there will be no hams onboard.

Due to Koichi Wakata's, KC5ZTA, increased work load beginning 2014-
03-11, ARISS has had to move 3 schools back to our long term waiting
list. We hope to get to them in the fall of 2014. There are also
several other schools that are on the list for possible postponement
to the fall.

[ANS thanks ARISS, and Charlie AJ9N for the above information]

Satellite Shorts From All Over

+ Radio ham launches Spud into Space for TV show
  http://tinyurl.com/ANS124-Spud

  [ANS thanks AMSAT-UK for the above information]

+ KickSat Sprite deployment may not happen
  http://tinyurl.com/ANS124-SpriteNoGo

  [ANS thanks AMSAT-UK for the above information]

+ Members of Radioclub Cancun will be QRV with the special callsign
  XE3RALLY from May 7 to 12 during the Rally Maya Mexico car race.
  Activity will be on 40 to 10 meters. This includes activity on
  satellite FO-29 from the Yucatan Peninsula, and some rare grids as
  well. QSL via XE3RCC.

  [ANS thanks ARRL DX Bulletin for the above information]

+ Paul Stoetzer reports "It looks like eclipse season has started
  for AO-7 as it was reported to still be in Mode B this morning over
  Europe and South America.

  This means it should be in Mode B daily for the next 16 weeks or so.

  Frank k4feg explains,
  Typically what this means is that the satellite will lose all
  power and by default go into "Start-Up" mode every time it comes
  back into the sunlight. Typically Mode B or C are the 1st mode of
  operations and the loss of sunlight prevents mode switches to A.

  Predictions had shown that the eclipse would occur either
  May 1 or May 2, depending on the orbital model you used, and May
  2nd over the USA, AO-7 was in mode B.

I have calculated the end of the eclipse cycle but I will update satellite information to assure a more definite date for AO-7 to go back into full sunlight.

[ANS thanks Paul N8HM, Frank K4FEG and AMSAT-BB for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org